What is Claimed is:

1. A method of dynamically controlling time slip corresponding to a first interrupt and a subsequent second interrupt selected from a plurality of interrupts, wherein the time slip represents the delta time between an intended time of the first interrupt relative to a real-time model and an actual time of the first interrupt relative a physical environment, the method comprising:

determining the actual first interrupt time relative to the physical environment;

determining the intended first interrupt time relative to the real-time model;

calculating a disparity between the actual first interrupt time and the intended first interrupt time;

determining an intended interrupt time of said second interrupt; and

adjusting said intended interrupt time of said second interrupt based on said disparity.

2. The method of claim 1, wherein said step of determining an intended interrupt time of said second interrupt further comprises determining said intended interrupt time of said second interrupt relative to the real-time model.

3. The method of claim 1, wherein said adjusting reduces the time slip corresponding to said subsequent second interrupt in accordance with the calculated disparity.

4. The method of claim 1, further comprising: initiating an execution cycle at the subsequent second interrupt in accordance with said adjusting, said execution cycle to perform instruction corresponding to at least one computer program selected from a group of computer programs.

5. The method of claim 4, wherein said initiating an execution cycle further comprises support for at least one third interrupt selected from said plurality of interrupts, said at least one third interrupt occurring between said first interrupt and said second interrupt, said at least one third interrupt to monitor said execution cycle.

6. The method of claim 5, wherein said method further comprising calculating a disparity between an actual third interrupt time and an intended third interrupt time for each of said at least one third interrupt.

7. The method of claim 6, wherein said step of calculating said disparity between an actual third interrupt time and an intended third interrupt time for each of said at least one third interrupt further comprises calculating the disparity between an actual third interrupt time and an intended third interrupt time for each of said at least one third interrupt.

8. The method of claim 1, wherein the time slip corresponding to a next interrupt following the first interrupt is reduced in accordance with said adjusting.

9. The method of claim 1, wherein the time slip corresponding to at least one interrupt following the first interrupt is reduced in accordance with a time interval selected from a group of time intervals consisting of:

a first time interval corresponding with a random latency introduced by the physical environment in delivering an interrupt;

a second time interval corresponding with a processing time required to integrate a system state flow equation;

a third time interval corresponding with a processing time required to compute a state update computation equation; and

combinations of these time intervals.

10. The method of claim 1, wherein said adjusting further comprises estimating at least one factor for use in adjusting said second intended interrupt time, said at least one factor selected from a group of factors consisting of:

a random latency factor introduced by the physical environment in delivering an interrupt;

a processing time factor required to integrate a system state flow equation; and

a processing time factor required to compute a state update computation equation.

11. The method of claim 10, wherein said second interrupt time is relative the physical environment.

12. The method of claim 1, wherein said adjusting reduces cumulative time slip corresponding to a series of interrupts selected from said plurality of interrupts.

13. The method of claim 1, wherein said plurality of interrupts is selected from a group of interrupts consisting of: a reactive interrupt; and a proactive interrupt

14. The method of claim 1, further comprising receiving inputs from and generating outputs to an interactive computing device.

15. The method of claim 14, wherein said receiving inputs from and generating outputs to an interactive computing device are selected from a group of interactive inputs and outputs consisting of:

an interaction with said calculating step;

an interaction with said adjusting step;

an interaction with said real-time modeling step; and

combinations of the calculating, adjusting, and real-time modeling steps.

16. The method of claim 1, wherein said first interrupt initiates a first execution cycle selected from a group of execution cycles, and said second interrupt initiates a second execution cycle selected from said group of execution cycles, wherein each execution cycle selected from said group of execution cycles relates to performing an instruction corresponding to at least one computer program selected from a group of computer programs.

17. The method of claim 1, wherein said adjusting further comprises: controlling time slip to reduce deviation between a current actual interrupt time and a current intended interrupt time for an interrupt subsequent to said first interrupt, the reduced deviation including a reduction selected from a group of reductions consisting of:

a reduction from accumulated deviations of prior interrupts;

a reduction from a single deviation of a prior interrupt; and

a reduction from interaction with the physical environment based on one or more state values.

18. The method of claim 1, wherein said first interrupt initiates a first execution cycle selected from a group of execution cycles, said execution cycle comprising the execution of at least one instruction corresponding to at least one computer program selected from a group of computer programs; and

said adjusting further comprises:

calculating a intended interrupt time based on said disparity;

detecting a completion time of said first execution cycle;

waiting for at most time to said intended interrupt time; and

reducing said intended interrupt time based on said completion time and said disparity.

19. The method of claim 18, wherein said intended interrupt is selected from a group of interrupts consisting of: a reactive interrupt resulting from a wait period, and a reactive interrupt generated by the physical environment

20. An apparatus including a circuit for dynamically controlling time slip to be performed by a computing device, said time slip corresponding to a first interrupt and a subsequent second interrupt selected from a plurality of interrupts, wherein the time slip represents the delta time between an intended time of the first interrupt relative to a real-time model and an actual time of the first interrupt relative to the apparatus, said apparatus comprising:

a processor circuit configured to process instructions and data; and

a memory circuit, coupled to said processor circuit, said memory circuit configured to store a computer-readable program code, said computer-readable program code comprising said instructions and data, configured to operate with said processor circuit, and including

a computer-readable program actual determination code to determine the actual first interrupt time relative to the apparatus;

a computer-readable program intended determination code to determine the intended first interrupt time relative to the real-time model;

a computer-readable program calculation code to calculate a disparity between the actual first interrupt time and the intended first interrupt time;

a computer-readable program next determination code to determine an intended interrupt time of said second interrupt; and

a computer-readable program adjustment code to adjust said intended interrupt time of said second interrupt based on said disparity.

21. The apparatus of claim 20, wherein said computer-readable program next determination code to determine an intended interrupt time of said second interrupt further comprises computer-readable program code to determine said intended interrupt time relative to the real-time model.

22. The apparatus of claim 20, wherein said computer-readable program adjustment code to reduce the time slip corresponding to said subsequent second interrupt in accordance with the calculated disparity.

23. The apparatus of claim 20, further comprising a computer-readable program cycle code to initiate an execution cycle at the subsequent second interrupt in accordance with said program adjustment code, said execution cycle comprising at least on instruction of at least one computer program selected from a group of computer programs.

24. The apparatus of claim 23, wherein said computer-readable program cycle code further comprises support for at least one third interrupt selected from said plurality of interrupts, said at least one third interrupt occurring between said first interrupt and said second interrupt, said at least one third interrupt to monitor said execution cycle.

25. The apparatus of claim 24, wherein said a computer-readable program calculation code further comprises instructions to calculate the disparity between and actual third interrupt time and an intended third interrupt time for each of said at least one third interrupt.

26. The apparatus of claim 25, wherein said a computer-readable program adjustment code to adjust said intended interrupt time of said second interrupt based on said

disparity further comprises computer-readable program code instructions that calculate the disparity between and actual third interrupt time and an intended third interrupt time for each of said at least one third interrupt.

27. The apparatus of claim 20, wherein said computer-readable program adjustment code comprises instructions to reduce the time slip corresponding to a next interrupt following the first interrupt.

28. The apparatus of claim 27, wherein the time slip corresponding to at least one interrupt following the first interrupt is reduced in accordance with a time interval selected from a group of time intervals consisting of:

a first time interval corresponding with a random latency introduced by the apparatus in delivering an interrupt;

a second time interval corresponding with a processing time required to integrate the system state flow equation; and

a third time interval corresponding with a processing time required to compute the state update computation equation.

29. The apparatus of claim 20, wherein said program adjustment code further comprises code to estimate at least one factor to adjust said second intended interrupt time, said at least one factor selected from a group of factors consisting of:

a random latency factor introduced by the apparatus in delivering an interrupt;

a processing time factor required to integrate the system state flow equation; and

a processing time factor required to compute the state update computation equation..

30. The apparatus of claim 29, wherein said second interrupt time is relative the apparatus.

31. The apparatus of claim 20, wherein said program adjustment code reduces cumulative time slip corresponding to a series of interrupts selected from said plurality of interrupts.

32. The apparatus of claim 31, wherein said plurality of interrupts is selected from a group of interrupts consisting of: a reactive interrupt; a proactive interrupt; and combinations thereof.

33. The apparatus of claim 20, further comprising a computer-readable program interface code to support receiving inputs from and generating outputs to a user computing device.

34. The apparatus of claim 33, wherein said receiving inputs from and generating outputs to a user computing device are selected from a group of interactions consisting of:

an input/output interaction with said calculating step;

an input/output interaction with said adjusting step; and

combinations of the input/output interaction with said calculating step and input/output interaction with said adjusting .

35. The apparatus of claim 20, wherein said first interrupt initiates a first execution cycle selected from a group of execution cycles, and said second interrupt initiates a second execution cycle selected from said group of execution cycles, wherein each execution cycle selected from said group of execution cycles relates to the execution of at least one computer program selected from a group of computer programs.

36. The apparatus of claim 20, wherein said program adjustment code further comprises time slip control to reduce deviation between a current actual interrupt time and a current intended interrupt time for an interrupt subsequent to said first interrupt, the reduced deviating including at least one reduction selected from a group of reductions consisting of:

a reduction from accumulated deviations of prior interrupts;

a reduction from a single deviation of a prior interrupt; and

a reduction from interaction with the apparatus based on state values.

37. A computer-readable medium encoded with a computer program code for dynamically controlling time slip corresponding to a first interrupt and a subsequent second interrupt selected from a plurality of interrupts, wherein the time slip represents the delta time between an intended time of the first interrupt relative to a real-time model

and an actual time of the first interrupt relative to the apparatus, the program code causing a computer to execute a method comprising:

determining the actual first interrupt time relative to the physical environment;

determining the intended first interrupt time relative to the real-time model;

calculating a disparity between the actual first interrupt time and the intended first interrupt time;

determining an intended interrupt time of said second interrupt; and

adjusting said intended interrupt time of said second interrupt based on said disparity.

38. The computer-readable medium of claim 37, wherein said determining an intended interrupt time of said second interrupt further comprises determining said intended interrupt time of said second interrupt relative to the real-time model.

39. The computer-readable medium of claim 38, wherein said adjusting reduces the time slip corresponding to said subsequent second interrupt in accordance with the calculated disparity.

40. The computer-readable medium of claim 39, further comprising: initiating an execution cycle at the subsequent second interrupt in accordance with said adjusting, said execution cycle to perform instruction corresponding to at least one computer program selected from a group of computer programs.

41. The computer-readable medium of claim 40, wherein said initiating an execution cycle further comprises support for at least one third interrupt selected from said plurality of interrupts, said at least one third interrupt occurring between said first interrupt and said second interrupt, said at least one third interrupt to monitor said execution cycle.

42. The computer-readable medium of claim 41, wherein said calculating said disparity further comprises calculating the disparity between and actual third interrupt time and an intended third interrupt time for each of said at least one third interrupt.

43. The computer-readable medium of claim 42, further comprising calculating a disparity an actual third interrupt time and an intended third interrupt time for each of said at least one third interrupt.

44. The computer-readable medium of claim 38, wherein the time slip corresponding to a next interrupt following the first interrupt is reduced in accordance with said adjusting.

45. The computer-readable medium of claim 44, wherein the time slip corresponding to at least one interrupt following the first interrupt is reduced in accordance with at least one time interval selected from a group of time intervals consisting of:

a first time interval corresponding with a random latency introduced by the physical environment in delivering an interrupt;

a second time interval corresponding with a processing time required to integrate a system state flow equation; and

a third time interval corresponding with a processing time required to compute a state update computation equation.

46. The computer-readable medium of claim 38, wherein said adjusting further comprises estimating at least one factor for use in adjusting said second intended interrupt time, said at least one factor selected from a group of factors consisting of:

a random latency factor introduced by the physical environment in delivering an interrupt;

a processing time factor required to integrate a system state flow equation; and

a processing time factor required to compute a state update computation equation.

47. The computer-readable medium of claim 46, wherein said second interrupt time is relative the physical environment.

48. The computer-readable medium of claim 47, wherein said adjusting reduces cumulative time slip corresponding to a series of interrupts selected from said plurality of interrupts.

49. The computer-readable medium of claim 38, wherein said plurality of interrupts is selected from a group of interrupts consisting of: a reactive interrupt, and a proactive interrupt..

50. The computer-readable medium of claim 48, further comprising interacting with said method by a user.

51. The computer-readable medium of claim 50, wherein said user interaction including an interaction selected from a group of interactions consisting of:

an interaction with said calculating;

an interaction with said adjusting; and

an interaction with said real-time model.

52. The computer-readable medium of claim 38, wherein said first interrupt initiates a first execution cycle selected from a group of execution cycles, and said second interrupt initiates a second execution cycle selected from said group of execution cycles, wherein each execution cycle selected from said group of execution cycles relates to the execution of at least one computer program selected from a group of computer programs.

53. The computer-readable medium of claim 52, wherein said program adjustment code further comprises time slip control to reduce deviation between a current actual interrupt time and a current intended interrupt time for an interrupt subsequent to said first interrupt, the reduced deviating including a reduction selected from a group of reductions consisting of:

a reduction from accumulated deviations of prior interrupts;

a reduction from a single deviation of a prior interrupt; and

a reduction from interaction with the apparatus based on state values.